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09/872,827	05/31/2001	Iqbal A. Goralwalla	CA920000033/2033P	3709

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EXAMINER

WONG, LESLIE

ART UNIT PAPER NUMBER

2177

DATE MAILED: 12/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/872,827

Applicant(s)

GORALWALLA ET AL.

Examiner

Leslie Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 7, 9, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by **Josten et al.** (U.S. Patent 5,546,579).

Regarding claims 1, 9, and 17, **Josten et al.** teaches a method, computer readable medium, and system for optimizing command execution in a database system, wherein data records are stored on a plurality of data pages therein (col. 5, line 65 – col. 6, line 6), the method comprising the steps of:

(a) providing <sup>Fig 2</sup> an identifier to each data page, the identifier indicating when any of the data records contained therein were last modified (col. 7, lines 42-59);

(b) selecting a data record from a data page (col. 8, lines 1-24);

(c) copying the selected data record to a second storage area (col. 8, lines 40-52); col. 9, line 4

(d) verifying that the selected data record has not been modified since the time that it was copied to the second storage area based upon the identifier (col. 8, line 65 – col. 9, line 9); and col. 10 38 – col. 11 (12)

(e) executing the command (col. 14, lines 11-19).

Regarding claims 2 and 10, **Josten et al.** further teaches wherein the copying step (c) includes:

(c 1) copying and storing the identifier to the second storage area (col. 6, lines 11-18).

Regarding claims 7, 15, and 18, **Josten et al.** further teaches wherein the second storage area is a temporary data record in a temporary table (SES as RAM or temporary table col. 6, lines 10-18 and col. 7, lines 23-27).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 3, 4, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Josten et al.** (U.S. Patent 5,546,579) as applied to claims 1, 2, 7, 9, 15, 17, and 18 above in view of **Josten et al.[2]** (U.S. Patent 5,574,902).

Regarding claims 3 and 11, **Josten et al.** does not clearly teach wherein the verifying step (d) includes:

- (d1) determining a current identifier for the data page;
- (d2) comparing the current identifier with the stored identifier; and
- (d3) concluding the selected data record has not been modified when the current identifier is the same as the stored identifier.

**Josten et al.[2]**, however, teaches wherein the verifying step (d) includes:

- (d1) determining a current identifier for the data page (col. 10, lines 50-57);
- (d2) comparing the current identifier with the stored identifier (col. 11, lines 34-38; col. 13, lines 62-67); and
- (d3) concluding the selected data record has not been modified when the current identifier is the same as the stored identifier (col. 11, lines 24-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to determine the current identifier and compare with the stored identifier as this would help the system to ascertain that the data page has been updated.

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Regarding claims 4 and 12, **Josten et al.** does not clearly <sup>teach</sup> wherein the verifying step (d) further includes:

(d4) determining whether the selected data record has not been modified

when the current identifier is not the same as the stored identifier by:

(d4a) accessing a current version of the selected data record on the data page (col. 7, lines 46-52 and col. 7, line 60 – col. 8, line 2); and

(d4b) comparing the selected data record with the current version of the selected data record (col. 11, lines 34-38; col. 13, lines 62-67).

**Josten et al.[2]**, however, teaches wherein the verifying step (d) further includes: (d4) determining whether the selected data record has not been modified (col. 11, lines 24-27) when the current identifier is not the same as the stored identifier by:

(d4a) accessing a current version of the selected data record on the data page (col. 7, lines 46-52 and col. 7, line 60 – col. 8, line 2); and

(d4b) comparing the selected data record with the current version of the selected data record (col. 11, lines 34-38; col. 13, lines 62-67).

5. Claims 5, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Josten et al.** (U.S. Patent 5,546,579) in view of **Josten et al.[2]** (U.S. Patent 5,574,902) as applied to claims 3, 4, 11, and 12 above and further in view of **Ponnekanti** (U.S. Patent 6,591,269).

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Regarding claims 5, 14, and 21, **Josten et al.** does not explicitly teach wherein the identifier comprises a time stamp.

**Ponnekanti**, however, teaches wherein the identifier comprises a time stamp (col. 11, lines 47-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the time stamp in the identifier because this would help the system to keep track of when the information is last update.

6. Claims 6, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Josten et al.** (U.S. Patent 5,546,579) in view of **Josten et al.**[2] (U.S. Patent 5,574,902) as applied to claims 3, 4, 11, and 12, and further in view of **Bhide et al.** (U.S. Patent 5,440,727).

Regarding claims 6, 13, and 20, **Josten et al.** does not explicitly teach wherein the identifier comprises a log sequence number (LSN).

**Bhide et al.**, however, teaches wherein the identifier comprises a log sequence number (LSN) (col. 6, lines 55-61).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the log sequence number in the identifier in order to facilitate identification of the target identifier.

*Replied w/ Mohan 9/4/06*

7. Claims 8, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Josten et al.** (U.S. Patent 5,546,579) as applied to claims 1, 2, 7, 9, 15, 17, and 18 above and in view of **Ponnekanti** (U.S. Patent 6,591,269).

Regarding claims 8, 16, and 19, **Josten et al.** does not explicitly teach wherein the command is a positioned UPDATE and DELETE command in a relational database system supporting scrollable cursors and optimistic concurrency.

**Ponnekanti**, however, teaches wherein the command is a positioned UPDATE and DELETE command in a relational database system supporting scrollable cursors and optimistic concurrency (col. 13, line 40 – col. 16, line 33).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to allow scrollable cursors and optimistic concurrency for UPDATE and DELETE command in a relational database system as this would increase the efficiency of the system in handling processing of queries.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Hayata et al.** (U.S Patent 5,893,097)

**Starkey** (U.S Patent 5,592,664)



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (703) 305-3018. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Leslie Wong  
Patent Examiner  
Art Unit 2177

lw  
14 December 2003



JEAN R. HOMERE  
PRIMARY EXAMINER